

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Original) A method for mitigating defect formation in a phosphosilicate glass layer, the method comprising forming an oxide cap upon the phosphosilicate glass layer via a chemical vapor deposition process.
2. Cancelled
3. (Currently Amended) ~~The method as recited in claim 2, wherein forming a glass layer comprises~~A method for mitigating defect formation in a glass layer of a semiconductor device, the method comprising:
forming a phosphosilicate glass layer upon a substrate; and
forming a cap oxide layer upon the glass layer.
4. (Currently Amended) ~~The method as recited in claim 2, wherein the substrate comprises~~A method for mitigating defect formation in a glass layer of a semiconductor device, the method comprising:
forming a glass layer upon a silicon substrate; and
forming a cap oxide layer upon the glass layer.
5. (Currently Amended) ~~The method as recited in claim 2, wherein the substrate has~~A method for mitigating defect formation in a glass layer of a semiconductor device, the method comprising:
forming a glass layer upon a substrate having at least one semiconductor layer formed thereon; and

forming a cap oxide layer upon the glass layer.

6. (Currently Amended) The method as recited in claim 23, wherein forming the cap oxide layer upon the glass layer comprises forming the cap oxide layer via a chemical vapor deposition process.

7. (Currently Amended) ~~The method as recited in claim 2, wherein:~~
~~—forming the glass layer upon the substrate comprises~~A method for mitigating defect formation in a glass layer of a semiconductor device, the method comprising:

forming the a glass layer upon a substrate via a first chemical vapor deposition process;
and

~~forming the cap oxide layer upon the glass layer comprises~~forming thea cap oxide layer upon the glass layer via a second chemical vapor deposition process; ~~and~~

wherein a reactor within which the first and second chemical vapor deposition processes are performed is not broken between the first and second chemical vapor deposition processes.

8. (Currently Amended) The method as recited in claim 23, wherein forming a cap oxide layer upon the glass layer comprises forming an undoped oxide layer upon the glass layer.

9. (Currently Amended) ~~The method as recited in claim 2, wherein~~A method for mitigating defect formation in a glass layer of a semiconductor device, the method comprising:

forming a glass layer upon a substrate; and

forming a cap oxide layer upon the glass layer~~comprises, the forming of a cap oxide layer comprising~~ forming an undoped oxide layer upon a P doped oxide film.

10. (Currently Amended) ~~The method as recited in claim 2,~~A method for mitigating defect formation in a glass layer of a semiconductor device, the method comprising:

forming a glass layer upon a substrate; and

forming a cap oxide layer upon the glass layer;

wherein at least one of the glass layer and the cap oxide layer is formed by a process selected from the group consisting of: a plasma enhanced chemical vapor deposition process; a sub-atmosphere chemical vapor deposition process; and an atmospheric ambient chemical vapor deposition process.

11. (Currently Amended) The method as recited in claim 23, wherein the cap oxide layer is formed to have a thickness greater than 300 Angstroms.

12. (Currently Amended) The method as recited in claim 23, wherein a phosphorus blocking capability of the cap oxide layer is at least 11% by weight.

13. (Currently Amended) The method as recited in claim 23, wherein the cap oxide layer is formed by SiH₄ and N₂O reacting gases.

14. (Currently Amended) The method as recited in claim 23, wherein the cap oxide layer is formed by TEOS and O₂ reacting gases.

15. (Currently Amended) The method as recited in claim 23, wherein the cap oxide layer process temperature is between approximately 350°C and approximately 600°C.

16. (Currently Amended) The method as recited in claim 23, wherein the glass layer process temperature is between approximately 450°C and approximately 650°C.

17. (Currently Amended) The method as recited in claim 23, wherein forming the cap oxide layer comprises forming at least one of inter-layer dielectric, inter-poly dielectric and inter-metal dielectric layers.

18-24. Cancelled